

PRINT NAME:

COC REV 3/99

ADDITIONAL REMARKS:

FIRM:

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 (425) 420-9200 FAX 420-9210 FAY 1-9290 FA. -9210

FIRM:

TIME:

PAGE

TEMP:

(509) 924-9200 (503) 906-9200 FAX 382-7588 (541) 383-9310

Environmental Laboratory Network www.ncalabs.com	CHAIN OF CU	STODY RE	PORT	Work Ord	er #:			
CLIENT: BRISTOL REPORT TO: ANNE KRANAWE	THER	INVOICE TO: BRISTOL			TURN	Organic	REQUEST in Business & Inorganic Analyses	
ADDRESS: AMCHITKA ISLAN	D. ALASKA				STD.	Petroleum	Hydrocarbon Analyses 3 2 1 <	
PHONE: 907-770.0974 PROJECT NAME: AMCHITKA	FAX: 110.09 D	P.O. NUMBER: 21 REQUESTE	O9O ED ANALYSES		STI	D.	Please Specify	<u></u>
PROJECT NUMBER: 21090 SAMPLED BY:					*Turnare	OTHER	R s than standard may incur Rush (Charges.
CLIENT SAMPLE SAMPLING IDENTIFICATION DATE/TIME	4				MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO
1.0/Am 39 6656 6/16/01 10	505 X				5			
2.								
3.								
5.								
6.								
7.								
9.								
10.								
11.								
13.								
14.								
15. RELINQUISHED BY:		DATE: 6(1610)	RECEIVED BY: CLOUPS	nade			DA*	TEG [16]01
PRINT NAME: Charle Marshall Relinquished BY:	FIRM: BRISTOL	TIME: 1602 DATE:	PRINT NAME: RECEIVED BY:	Craig Brad	FIRM:	NCA		ME: /602

PRINT NAME:

TIME:



Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

23 October, 2001

Steve Johnson Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are amended results of analyses for samples received by the laboratory on 06/22/01 12:56. If you have any questions concerning this report, please feel free to contact me. These results supercede all previous results reported by the laboratory.

Sincerely,

Jerry Orlando

Project Manager/QA

fy slando

Work Orders included in this report:

P1F0712



Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 fax 425.420.9210

425.426.

Spokane

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9200

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

ANALYTICAL REPORT FOR SAMPLES - Amended

Sample ID	Laboratory ID	35.41		
O1 A MDOCOGY	Laboratory ID	Matrix	Date Sampled	Date Received
01AMB968SL	P1F0712-01	Soil	06/16/01 15:05	06/22/01 12:56

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jerry Orlando, Project Manager/QA



Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425,426. fax 425.420.9210

 Spokane
 425,420.
 18X 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

 509,924,9290
 fax 509,924,9290

 Portland
 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

 503,906,9200
 fax 503,906,9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMB968SL (P1F0712-01) Soil					Sampled: 06/1	6/01 Rece	ived: 06/22/	01	R-05
Acenaphthene	ND	1340	ug/kg dry	100	EPA 8270m	06/28/01	07/06/01		
Acenaphthylene	ND	1340	11	"	2171 327011	100/20/01	07/06/01	1060938	R-03
Anthracene	ND	1340	11	n	**		"	" H	R-03
Benzo (a) anthracene	ND	26.8	"	2	er	н		,	R-03
Benzo (a) pyrene	ND	26.8	11	2 H	*	11	07/05/01	" B	
Benzo (b) fluoranthene	ND	26.8	"	**	n	11	" "	"	
Benzo (ghi) perylene	ND	26.8	н	H.	11		,,	,,	
Benzo (k) fluoranthene	ND	26.8	tt	11				" "	
Chrysene	51.3	26.8	. 11	11	**	н	"		
Dibenzo (a,h) anthracene	ND	26.8	H	n	#	,,	" "		
Fluoranthene	ND	1340	11	100	,	" "		"	
Fluorene	ND	6700	11	100		"	07/06/01		R-03
Indeno (1,2,3-cd) pyrene	ND	26.8	11		"	" "		#	R-03
Naphthalene	ND	2680	lt.	2			07/05/01	Ħ	
Phenanthrene	2830	1340		100	"	"	07/06/01	Ħ	R-03
Pyrene	249	26.8	н		"	"	H	#	
Surr: Fluorene-d10				2	**		07/05/01	"	
	NR	40-150							S-01
Surr: Pyrene-d10	NR	40-150							S-02
Surr: Benzo (a) pyrene-d12	79.2 %	40-150							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 fax 425.420.9210

425.420.

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

Percent Dry Weight (Solids) per Standard Methods North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMB968SL (P1F0712-01) Soil					Sampled: 06/1	6/01 Recei	ved: 06/22/0)1	
% Solids	78.5	1.00 %	by Weight	1	NCA SOP	06/29/01	07/02/01	1060995	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





'reek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.. fax 425.420.9210

Spokane

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch 1060938 - EPA 3550							
Blank (1060938-BLK1)				Prepared: 06/28/01	Analyze	1: 07/02/01	
Acenaphthene	ND	13.4	ug/kg		7 Hidiy 200	1. 07/02/01	
Acenaphthylene	ND	13.4	11				
Anthracene	ND	13.4	11				
Benzo (a) anthracene	ND	13.4	H				
Benzo (a) pyrene	ND	13.4	n				
Benzo (b) fluoranthene	ND	13.4	**				
Benzo (ghi) perylene	ND	13.4	n				
Benzo (k) fluoranthene	ND	13.4	11				
Chrysene	ND	13.4	**				
Dibenzo (a,h) anthracene	ND	13.4					
Fluoranthene	ND	13.4	H				
Fluorene	ND	13.4	H				
Indeno (1,2,3-cd) pyrene	ND	13.4	,				
Naphthalene	ND	13.4					
Phenanthrene	ND	13.4					
Pyrene	ND	13.4					
Surr: Fluorene-d10	66.9		"	83.3	80.3	40-150	
Surr: Pyrene-d10	70.3		"	83.3	84.4	40-150	
Surr: Benzo (a) pyrene-d12	76.8		"	83.3	92.2	40-150	
LCS (1060938-BS1)				Prepared: 06/28/01	Analyze	i: 07/02/01	
Acenaphthene	135	13.4	ug/kg	167	80.8	33-139	
Benzo (a) pyrene	142	13.4	"	167	85.0	45-149	
Pyrene	118	13.4	п	167	70.7	39-138	
Surr: Fluorene-d10	66.7		· r	83.3	80.1	40-150	
Surr: Pyrene-d10	71.1		"	83.3	85.4	40-150	
Surr: Benzo (a) pyrene-d12	77.7		"	83.3	93.3	40-150	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jerry Orlando, Project Manager/QA



reek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.. fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Po	rtland
-----------------------------	--------

Analyte	Result	Reporting Limit		Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060938 - EPA 3550										
Matrix Spike (1060938-MS1)	Soi	urce: P1F06	69-13	Prepared:	06/28/01	Analyzed	l: 07/02/01			
Acenaphthene	151	13.4		184	ND	82.1	33-139			
Benzo (a) pyrene	160	13.4	"	184	ND	87.0	45-149			
Pyrene	139	13.4	11	184	ND	73.5	39-138			
Surr: Fluorene-d10	69.7		"	92.2		75.6	40-150			
Surr: Pyrene-d10	77.3		"	92.2		83.8	40-150 40-150			
Surr: Benzo (a) pyrene-d12	82.4		n	92.1		89.5	40-150 40-150			
Matrix Spike Dup (1060938-MSD1)	Sou	ırce: P1F06	69-13	Prepared:	: 06/28/01	Analyzed	: 07/02/01			
Acenaphthene	129	13.4	ug/kg dry	184	ND	70.1	33-139	15.7	60	
Benzo (a) pyrene	158	13.4	"	184	ND	85.9	45-149	1.26	60	
Pyrene	136	13.4	17	184	ND	71.9	39-138	2.18	60	
Surr: Fluorene-d10	62.4		"	92.2		67.7	40-150			
Surr: Pyrene-d10	74.4		n	92,2		80.7	40-150 40-150			
Surr: Benzo (a) pyrene-d12	80.6		n .	92.1		87.5	40-150 40-150			

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



93.1

Seattle 11720 N

Greek Pkwy N, Suite 400, Bothell, WA 98011-8244

0.107

20

425.420. fax 425.420.9210

Spokene East 11115 Montgomery, Suite B, Spokene, WA 99206-4776

509.924.9200 fax 509.924.9290 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		_								2,000

Batch 1060995 - Dry Weight

Duplicate (1060995-DUP1) % Solids	Source	: P1F0712-01	Prepared: 06/29/01	Analyzed: 07/02/01		
% Solids	76.9	1.00 % by Weigh			2.06	20
Duplicate (1060995-DUP2) % Solids	Source	: P1F0843-07		Analyzed: 07/02/01		

1.00 % by Weight

93.0

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jerry Orlando, Project Manager/QA



Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425,420 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 Portland

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Steve Johnson

Amended Report Issued: 10/23/01 16:07

Notes and Definitions

R-03	The reporting limit for this analyte was raised due to matrix interference.
------	---

Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, R-05 and/or matrix interference.

The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or S-01 matrix interferences.

The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds S-02 present in the sample.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%. dry

Sample results reported on a wet weight basis (as received) wet

Relative Percent Difference **RPD**

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety,